TECHNICAL WORK MAY NOT BEGIN PRIOR TO CO APPROVAL

NASA/GODDARD SPACE FLIGHT CENTER

REQUEST FOR TASK PLAN / TASK ORDER

CONTRACTOR	CONTRACT NO./TASK NO.			JOB ORDER NUMBER	APPROP. FY
	NAS5-	TASK NO.	AMENDMENT		
QSS Group, Inc.	99124	263		730-632-62-01-89	00

TASK TITLE: (NTE 80 characters; include Project name)

Micro/Nano Technology Investment Study

APPROVALS: (Type or print name and sign)

	DATE	ORG CODE	MAIL CODE	PHONE
ASSISTANT TECHNICAL REPRESENTATIVE (OR TASK MONITOR) John E. Oberright	04/10/2000	730	730	301-286-9455
BRANCH HEAD James F. Andary	4/11/00	730		301-286-2269
CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR) Robert S. Lebair Jr.	4/11/00	560		301-286-6382

FLIGHT HARDWARE, CRITICAL GSE OR SOFTWARE (IF YES, NEED CODE 303 CONCURRENCE/NEXT BLOCK)	CONTRACTING OFFICER'S QUALITY REP.	DESIGNATED FAM:
(x) NO [ ] YES	Larry Moore	

The contractor shall identify and explain the reason for any deviations, exceptions, or conditional assumptions taken with respect to this Task Order or to any of the technical requirements of the Task Order Statement of Work and related specifications. The contractor shall complete and submit the required Reps and Certs.

(To be completed by Contracting Officer)
C.O. Requested Quote on:
Date:

Contractor will develop specification or statement of work under this task for a future procurement. (x) NO [ ] YES

Flight hardware will be shipped to GSFC for testing prior to final delivery. [ ] NO [ ] YES (x) N/A

Government Furnished Property/Facilities: (x) NO [ ] YES -- SEE LIST OF GFP (offsite only) / FACILITIES (onsite only)

Onsite Performance: [ ] NO (x) YES If yes: [X] TOTAL [ ] PARTIAL
If partial, indicate onsite work in SOW by asterisk (*)

Surveillance Plan Attached: (x) NO [ ] YES

Highlighted Contract Clauses: *(to be completed by Contracting Officer)*

Per Clause H.14, Task Ordering Procedure, subparagraph (f), the effective date of this task order shall be May 3, 2000.

INCENTIVE FEE STRUCTURE (check one)
(See Contract NAS5-99124, Attachment K, Incentive Fee Plan)

	x No. 1	___ No. 2	___ No. 3	___ No. 4	___ No. 5
Cost	10%	50%	25%	25%	%
Schedule	15%	25%	25%	50%	%
Technical	75%	25%	50%	25%	%

(To be completed by Contracting Officer)

The target cost of this task order is $ 41,110.
The target fee of this task order is $ 2,672.
The total target cost and target fee of this task order as contemplated by the Incentive Fee clause of this contract is $ 43,782.

The maximum fee is $ 3,905.
The minimum fee is $0.

AUTHORIZED SIGNATURE:

THIS TASK ASSIGNMENT IS ISSUED ACCORDING TO THE CONTRACT CLAUSE "TASK ASSIGNMENTS AND REPORTS"

SIGNATURE OF CONTRACTING OFFICER — DATE: 5/3/00 — ELIZABETH J. AUSTIN, CONTRACTING OFFICER (TYPED NAME OF CONTRACTING OFFICER)

CONTRACTOR'S ACCEPTANCE:

AUTHORIZED SIGNATURE — DATE

GSFC FORM 703-1845 12/98 (OLDER VERSIONS ARE OBSOLETE)

DISTRIBUTION: CONTRACTOR, CONTRACTING OFFICER, COTR, CODE 303, RESOURCES ANALYST, ASSISTANT TECHNICAL REPRESENTATIVE

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CONTRACTOR	CONTRACT NO. (NAS5-)	TASK NO.	AMENDMENT
QSS Group, Inc.	99124	263	

Applicable paragraphs from contract Statement of Work:

STATEMENT OF WORK: (Continue on blank paper if additional space is required)

Objectives:

1) Evaluate the impact of Micro/Nano Technology if it had been available and applied to existing missions.
2) Develop systems architecture concepts to capture the nano-scale technology for future missions.

1a) Obtain high level mission design documentation for 5 missions with mass less than 1000 Kg.
1b) Decompose these mission designs by subsystem and characterize each for mass and power.
1c) For the three largest mass subsystems in each mission identify major functions and components of the subsystem.
1d) Identify the relationship between the component-function performance and its weight and power.
1e) Define specific quantitative technology goals to reduce power/mass by a factor of 10.
1f) Identify approaches to achieve these goals in 15 years:
- -- Is the approach being implemented?
- -- What should be the approach (roadmap)?
- -- If a factor of 10 is unrealistic, what is realistic, and what should be the approach?

2a) Develop nano-systems architecture concepts which do not rely on traditional division by subsystems.
2b) Evaluate impact of combined functions for reducing systems requirements and cost.
2c) Generalize architecture approach and develop guidelines for use in designs.

PERFORMANCE SPECIFICATIONS:

Completeness of study, applicability of missions, functional element decomposition, identification of technology, and payoff analysis.
Functionality and simplicity of system architecture concepts.
Clarity of summary and results presentation.
All reporting to be done electronically: John.E.Oberright@gsfc.nasa.gov

APPLICABLE DOCUMENTS:

None.

TASK END DATE: 3/1/01

MILESTONES/DELIVERABLES AND DATES:

1) Trial formats to insure result content: ~~4/21/00~~ 5/5/00
First trial mission analysis: ~~5/1/00~~ 5/21/00
Complete analysis of 5 missions: 8/1/00
Document results: 10/1/00

2) Candidate architectures: 7/1/00
Evaluation of impact: 10/1/00
Generalized architecture selection: 12/1/00
Guidelines for application and final report: 2/1/01

PERFORMANCE STANDARDS:

Schedule: On-time delivery of reports
Technical: Completeness and clarity of reports

FINAL DELIVERY DESTINATION (NAME, BLDG, ROOM):
John Oberright, building 23, room S401